

ANTI-OLIGONUCLEOTIDE ANTIBODY DEVELOPMENT

Rockland's antibody development capabilities include the proven ability to generate critical antibody reagents for the preclinical detection and characterization of specific anti-oligonucleotides under consideration as drug candidates. Anti-oligo antibodies exhibit sequence- or modification-specific binding properties and are intended for applications including ELISA and immunohistochemistry (IHC). With the development of anti-oligonucleotide technologies and the first regulatory approval of an anti-oligo as a therapeutic agent, the need for analytical reporting has increased.

Rockland has successfully worked with diverse nucleic acid chemical structures for antibody development. When working closely with clients to understand the biochemical properties of the target nucleic acids, Rockland can design a tailored antibody generation strategy. With years of experience and exposure to difficult protein and chemical immunogens, Rockland is a valuable partner by utilizing strengths unique to the industry.



**KNOWLEDGEABLE
SCIENTIFIC STAFF**



**SUCCESS
WITH DIFFICULT
PROJECTS**



**EXTENSIVE
EXPERIENCE**



**SPECIALIZED
OLIGO CONJUGATION
METHODS**

COMPREHENSIVE SINGLE DOMAIN SERVICES

ANTIGEN PREPARATION

- Normal backbone/modified backbone
- Conjugation
- Immunogen qualification

ANTISERA DEVELOPMENT

- Polyclonal or monoclonal
- Immune response monitoring by antisera titration

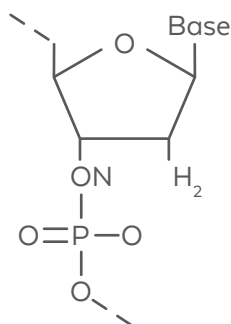
ANTIBODY CHARACTERIZATION

- Fit-for-purpose
- Affinity determination
- Assay development

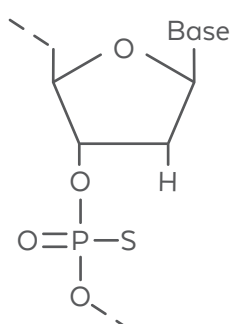
ANTIGEN PURIFICATION

- Specialized affinity purification methods
- Custom anti-oligonucleotide purification

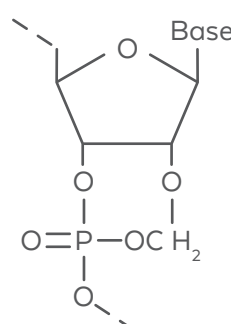
MOST COMMON NUCLEIC ACID CHEMICALSTRUCTURES



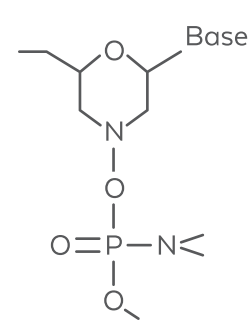
Phosphodiester
Oligonucleotide



Phosphorothioate
(PS)



2'-O-Methyl
(2'-OME)



Morpholino Phosphoroamidate
(MF)

PRODUCING AN OLIGONUCLEOTIDE ANTIBODY

Rockland generates oligonucleotide-specific antibodies as either polyclonal or monoclonal reagents. Our optimized anti-oligo antibody process provides the desired sensitivity and specificity to most required specifications. The workflow presented below results in a well-validated antibody suitable for analytical assay development.

